

REMARKS

Claims 1-18 are all the claims pending in the application. By this Amendment, Applicant adds new claims 10-18.

The Examiner rejects claims 1-9 under 35 U.S.C. § 103(a) as being obvious over Applicant's admitted prior art of Figs. 22-26. Applicant respectfully traverses this rejection in view of the following remarks.

A. *Independent Claim 1:*

Claim 1 recites (among other things) that each of the two portions have a radial length (ht) and a width (bt) that satisfy an *expression* $0.15 < bt/ht < 0.4$. An exemplary embodiment of this feature is discussed throughout the specification. Also, this specific arrangement of parts is important because (as compared to conventional structures) it improves resistance to heat degradation and suppresses deterioration in electrical insulation resulting from loosening of the bond between the stator winding and the stator core.¹ At least this feature as set forth in claim 1, in combination with the other limitations recited in claim 1, is not taught or suggested by the prior art relied upon in the grounds of rejection.

The grounds of rejection rely heavily upon Applicant's admitted prior art of Figs. 22-26 to teach all of the features of claim 1, except for the specific relationship $0.15 < bt/ht < 0.4$. Nevertheless, the grounds of rejection conclude that changing the size of the stator tooth so that

¹ Spec., paragraph bridging pages 16-17; also see Fig. 6.

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the ratio (bt/ht) satisfies the expression $0.15 < bt/ht < 0.4$ would have been obvious since the discovery of optimum or workable ranges involves only routine skill in the art. Apparently, the Examiner believes that the skilled artisan would have arrived at the specific relationship recited in claim 1 through routine experimentation.² This is simply not understood, however, because a particular variable must first be recognized as a result-effective variable before the determination of the optimum or workable ranges of the variable might be characterized as routine experimentation.³

In this case, the prior art does not teach or suggest that the ratio between the width and the radial length of the stator tooth is a result effective variable. The present specification is straightforward in this regard. With reference to Fig. 26, it indicates that the ratio bt/ht is approximately equal to 0.42, which is outside of the claimed range. Furthermore, the specification indicates that “until now *no consideration* had been given to the ratio (bt/ht) between the width bt and the radial length ht of the tooth portions 31” (emphasis added).⁴ That is, the conventional wisdom does not recognize the ratio (bt/ht) as a result effective variable. Accordingly, Applicant respectfully submits that it would not have obvious to a person of ordinary skill in the art at the time the invention was made to reshape the tooth portion 31

² MPEP 2124.05 II.a.

³ MPEP 2124.05 II.b.

⁴ Spec., paragraph bridging pages 6-7.

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depicted in Fig. 26 of the present application so that the expression $0.15 < bt/ht < 0.4$ would have been satisfied.

B. *New Independent Claim 10:*

New independent claim 10 is similar to claim 1 in that it recites (among other things) that each of the tooth portions has a radial length ht and a width bt that satisfies an *expression 0.15 < bt/ht < 0.4*. Consequently, claim 10 is believed to be patentable for reasons analogous to those noted above with respect to claim 1.

For these reasons, Applicant respectfully asserts that claims 1 and 10 are patentable, and that claims 2-9 and 11-18 are patentable at least by virtue of their dependencies.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Ray Heflin
Registration No. 41,060

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 10-18 are added as new claims.